AMENDMENTS

In the Claims

1. (Currently Amended) A capacitance measurement system for determining water content of a gaseous sample comprising:

a body defining a chamber having first and second ports, said chamber containing a capacitance sensor probe,

first and second valves, said first valve in communication with said first port and said second valve in communication with said second port, and

a dry gas source to pass dry gas over said sensor probe to dehydrate it,

wherein said chamber is apart from an environment to be sampled for moisture by said capacitance sensor probe, and

wherein a sampling conduit provides fluid communication through said first port between said chamber and the environment.

2. (Original) The system of claim 1, wherein said valves are positioned to allow dry gas to flow through said chamber in one state and sample to flow through said chamber in a another state.

3. (Original) The system of claim 1, further comprising a vacuum pump in fluid communication with said chamber to draw sample into said chamber.

4. (Original) The system of claim 3, wherein said vacuum pump comprises a venturi device.

5. (Original) The system of claim 4, wherein said venturi device is driven by said dry gas source.

6. (Original) The system of claim 1, wherein said ports are oriented orthogonally along said body.

7. (Currently Amended) The system of claim 1, wherein said first and second valves are two-way valves and said system further comprises third and fourth three-way valves, said third and fourth valves in communication with each other, said third valve also in communication with said first valve and ~~a sample siphon~~ said sampling conduit, said fourth valve also in communication with said dry gas source and said pump, said second valve also in communication with said pump, wherein said pump comprises a venturi device.

8. (Currently Amended) A method of capacitance measurement for determining water content of a gaseous sample from a synthesis environment comprising:

flowing dry gas over a capacitance sensor apart from said synthesis environment so said sensor desorbs water,

terminating said flowing of dry gas, and

flowing sample ~~form~~ from said synthesis environment over said sensor to measure water content of said sample.

9. (Original) The method of claim 8, further comprising isolating said capacitance sensor in the presence of dry gas to maintain a low water content.

10. (Original) The method of claim 8, wherein negative pressure from a venturi pump draws sample from a sample site through a flow-cell containing said sensor.

11. (Original) The method of claim 8, wherein a biopolymer is produced in the synthesis environment.

12. (Original) The method according to claim 11, wherein said biopolymer is a polypeptide or nucleic acid.

13. (Original) The method according to claim 12, wherein said method is a method of producing a biopolymer array.

14. (Original) A biopolymeric array produced according to the method of claim 13.

15. (Currently Amended) A method of detecting the presence of an analyte in a sample, said method comprising:

~~(a)~~ contacting (i) a biopolymeric array according to Claim 14 having a ~~polymeric ligand~~ complementary binding pair member that specifically binds to said analyte, with (ii) a sample suspected of comprising said analyte under conditions sufficient for binding of said analyte to a biopolymeric ligand on said array to occur; and

detecting the presence of binding complexes on the surface of the said array to detect the presence of said analyte in said sample.

16. (Original) The method according to claim 15, wherein said method further transmitting
a result from the detecting step.

17. (Original) A method according to claim 16 wherein the result is communicated to a remote location.

18. (Original) A method comprising receiving data representing a result of a reading obtained by the method of claim 15.

19. (Currently Amended) A capacitance measurement system for determining water content of a gaseous sample comprising:

a body defining a chamber containing a capacitance sensor probe, a dry gas source, and a venturi device,

wherein said system is configured so said venturi device produces a negative pressure within said chamber in one state, ~~and~~

wherein said system is configured so said dry gas source provides a flow of dry gas within said chamber to pass over said sensor probe to dehydrate it in another state,

wherein said chamber is apart from an environment to be sampled for moisture by said capacitance sensor probe, and

wherein a sampling conduit provides fluid communication through said first port between said chamber and the environment.

20. (Original) The system of claim 19, wherein said system is configured to draw sample gas into said chamber by said negative pressure.

21. (Original) The system of claim 19, wherein said venturi device is driven by said dry gas